MATERIAL SPECIFICATIONS FOR USE OF TIRE DERIVED AGGREGATE (TDA) IN CIVIL ENGINEERING APPLICATIONS

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Revised: July 13, 2001

Revised to replace tire shred with TDA: January 25, 2005

TDA, General. The material shall be made from scrap tires which shall be shredded into the sizes specified herein. They shall be produced by a shearing process. TDA produced by a hammer mill will not be allowed. The TDA shall be free of all contaminants such as oil, grease, gasoline, diesel fuel, etc., that could leach into the groundwater or create a fire hazard. In no case shall the TDA contain the remains of tires that have been subjected to a fire because the heat of a fire may liberate liquid petroleum products from the tire that could create a fire hazard when the shreds are placed in a fill. The TDA shall be free from fragments of wood, wood chips, and other fibrous organic matter. The TDA shall have less than 1% (by weight) of metal fragments that are not at least partially encased in rubber. Metal fragments that are partially encased in rubber shall protrude no more than 25 mm (1 in.) from the cut edge of the TDA on 75% of the pieces (by weight) and no more than 50 mm (2 in.) on 90% of the pieces (by weight). The gradation shall be measured in accordance with AASHTO T-27, "Standard Method for Sieve Analysis of Fine and Coarse Aggregate", except that the minimum sample size shall be 12 kilograms (30 pounds).

TDA, Type A. Type A TDA shall have a maximum dimension, measured in any direction, of 203 mm (8 in.). In addition, Type A TDA shall have 100% passing the 102 mm (4 in.) square mesh sieve, a minimum of 95% passing (by weight) the 75 mm (3 in.) square mesh sieve, a minimum of 50% passing (by weight) the 38 mm (1.5 in.) square mesh sieve, and a maximum of 5% passing (by weight) the No. 4 sieve.

TDA, Type B. A minimum of 90 percent (by weight) shall have a maximum dimension, measured in any direction, of 300 mm (12 in.) and 100 percent shall have a maximum dimension, measured in any direction, of 450 mm (18 in.). At least one side wall shall be severed from the tread of each tire. A minimum of 75% (by weight) shall pass the 203 mm (8 in.) square mesh sieve, a maximum of 50% (by weight) shall pass the 76 mm (3-in.) square mesh sieve, a maximum of 25% (by weight) shall pass the 38 mm (1.5-in.) square mesh sieve, and a maximum of 1% (by weight) shall pass the No. 4 sieve (4.75 mm; 0.187 in.).